

# Work Order ID 52872



Page 1

October 16, 2009 10:07:51 AM

Item ID: D206-642-541

Accept



Setup Start



Revision ID: M

Stop



Item Name: Replacement Skidtube

Start Date: 16/10/2009 Start Qty: 1.00



Cust Item ID:

Required Date: 02/11/2009 Req'd Qty: 1.00



Customer:

Reference:

Run Start



Approvals: Process Plan: *PL*

Date: *09-10-16* Tooling:

Date:

Stop



QC:

Date:

SPC (Y/N):

Date:

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Draw  
Number

Draw  
Rev.

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

Draw Nbr

Revision Nbr

IIN-D206-642

Rev M

100

0.00



DOCUMENT CONTROL

DC

0.00

Document Control

Memo

Photocopy bluefile & type labels per PPP D206-642-541

CHG003

*N/A* *[Signature]*

**Work Order ID 52872**

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Start Date: 16/10/2009 Start Qty: 1.00



Cust Item ID:

Required Date: 02/11/2009 Req'd Qty: 1.00



Customer:

Reference:

Run Start



Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Stop



QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run HoursDraw  
NumberDraw  
Rev.Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

110

0.00



Skidtubes

Skidtubes

0.00

**Memo**

1- Bend FWD end of tube using bend prog D3274 FWD dwg D3274, cut fwd end of tube with saw table setup D3274.

D 9-10-20

2- remove fwd indexing ridge as per dwg D3274. Prepare for welding

SAD 09-10-21

3- weld fwd cap as per dwg D3274 and OSI004

AR Aluminum Rod Batch: 110213/m111999

BE 09-10-22

4- grind fwd cap weld on top surface only

BE 09-10-22

5- Cut AFT end of tube at 170.9" as per dwg D3274 and deburr end

6-Drill Aft cap pilot hole using DT8025

7 -Cleco DT8025 in position and install pilot hole drill Jig DT8742A,B,C,D.  
Drill 3/16" pilot holes as per Dwg D3274

M 9-10-22

8 -Remove inner indexing ridge on aft end of skidtube as per Dwg D3274 scribe batch #

9 -Open aft end cap holes to Ø0.208" as per Dwg D3274. Deburr aft end.

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Item Name: Replacement Skidtube

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Required Date: 02/11/2009 Req'd Qty: 1.00



Customer:

Reference:

Run Start



Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Stop



QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run HoursDraw  
NumberDraw  
Rev.Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

120

Chemical Conversion Coat per QSI005 4.1

0.00



HandFinish

Memo

0.00

SAD 09-10-20



Hand Finishing

130

QC3- Inspect Part Finish

0.00



QC

Memo

0.00

27 8 09/10/26



6

Quality Control

140

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

27 8 09/10/26



6

Quality Control

# Work Order ID 52872

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Item ID: D206-642-541  
Revision ID: M  
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Setup Start  
Stop



Start Date: 16/10/2009 Start Qty: 1.00  
Required Date: 02/11/2009 Req'd Qty: 1.00



Cust Item ID:  
Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_  
QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Run Start  
Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	----------------	--------------	--------------	---------------	---------------	------------------	----------------

150



Skidtubes

Skidtubes

0.00

0.00

Memo

1-Open Ø0.313" and 0.375" crossbolt spacer holes using DT8743 as per Dwg D3274

2-Deburr crossbolt spacer holes as per Dwg D3274 and blow out chips from inside the tube

3-Bond web in place as per Dwg D3274 & QSI 015.

A/R ☐ Sikaflex-291 ☐ 112371 ☐

Sikaflex expire date: ☐ 9-2-20 ☐

Start: ☐ 9-10-28 Time: ☐ 2:00 ☐ - 9:00

Finish: ☐ 9/16/28 Time: ☐ 10:15 AM

(Adhere for 12 hours)

1 - - AWM 9-10-26

1 n 9/10/28

160



QC

Quality Control

QC5- Inspect part completeness to step on W/O

0.00

0.00

Memo

⇒ 8 9/10/28



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Start Date: 16/10/2009 Start Qty: 1.00



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Required Date: 02/11/2009 Req'd Qty: 1.00



Customer:

Reference:

Run Start



Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Stop



QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Draw  
Number

Draw  
Rev.

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

170



Skidtubes

Skidtubes

0.00

0.00

Memo

1-Bend AFT end of tube using bend prog. D3274 AFT as per dwg D3274. Install drop pins in crossbolt spacer holes to maintain web position.

2- DRILL PILOT HOLES FOR WEARPLATES USING D3274-IT2  
OPEN HOLES TO .297" . Deburr

3-DRILL TOE PIN HOLE .640" DIA AS PER DWG USING DT895 FWD  
END OF TUBE  
DEBURR INSIDE OF HOLE AS NECESSARY (DO NOT ENLARGE HOLES)  
REMOVE ANY FOREIGN OBJECTS INSIDE OF TUBES

4- Countersink crossbolt spacer holes as per Dwg D3274

5- prepare for welding

DD 9-11-2

11/9/11/2

180



QC

Quality Control

QC5- Inspect part completeness to step on W/O

0.00

0.00

Memo

80811/12

40

h2 3.00"

L = 4.5"

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Cust Item ID:

Required Date: 02/11/2009 Req'd Qty: 1.00



Customer:

Reference:

Run Start



Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Stop



QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	----------------	--------------	--------------	---------------	---------------	------------------	----------------

190

0.00



Skidtubes

Skidtubes

Memo

0.00

1-Insert D2649 & D3275-1 crossbolt spacers. Weld as per QSI 004 and Dwg D3274. Remember to back drill each hole before welding the other side. Use aluminum rod  
A/R ☐ Aluminum Rod ☒ M112507 BE 09/11/04

3-Grind cross bolt welds flush as per Dwg D3274.

4-Counterbore 5/16" x 0.750" deep as per Dwg D3274. Use DT8743 visual aid Jig and deburr.

200

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

⇒ Sorluloy



1 11/11/04

# Work Order ID 52872



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Item ID: D206-642-541

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Stop



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Start Date: 10/10/2009 Start Qty: 1.00



Cust Item ID:

Required Date: 02/11/2009 Req'd Qty: 1.00



Customer:

Reference:

Run Start



Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Stop



QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	----------------	--------------	--------------	---------------	---------------	------------------	----------------

210

QC10- Inspect visual per QSI004- ground welds

0.00



2) 6 or 10/10/09

QC

Memo

0.00

Quality Control

220

Pressure Wash per QSI005 4.3

0.00



2) 10/11/06

HandFinish

Memo

0.00

Hand Finishing

230

White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum

0.00



1/11/2140

2) 10/11/06

Powdercoat

Memo

0.00

Powder Coating

START TIME: 9:00AM  
OVEN TEMPERATURE: 320°F  
FINISH TIME: 9:30AM

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Start Date: 16/10/2009 Start Qty: 1.00



Cust Item ID:

Required Date: 02/11/2009 Req'd Qty: 1.00



Customer:

Reference:

Run Start



Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Stop



QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	----------------	--------------	--------------	---------------	---------------	------------------	----------------

240

QC3- Inspect Part Finish

0.00



MO 09/11/11

NA

QC

Memo

0.00

Quality Control

250

HandFinishing

0.00



NA

HandFinish

Memo

0.00

Hand Finishing

1-Install Nut Plate as per Dwg D3274. Apply LPS-3 to Nut Plate and rivets.  
A/R ☐ N/A ☐ LPS-3 ☐

2-Install inserts as per Dwg D3274. Use a drop of Sikaflex inside insert holes a  
A/R ☐ ☐ Sikaflex-291 ☐ m112391 ☐  
Sikaflex expire date: ☐ 10/20

MO 09/11/11

260

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

Inspect Nut Plate & Inserts

1



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Start Date: 16/10/2009 Start Qty: 1.00



Cust Item ID:

Required Date: 02/11/2009 Req'd Qty: 1.00



Customer:

Reference:

Run Start



Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Stop



QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	----------------	--------------	--------------	---------------	---------------	------------------	----------------

270

0.00



HAND FINISHING RESOURCE #1

HandFinish

Memo

0.00

Hand Finishing

1-Install wearpads & gaskets as per Dwg D3274.

2-Install ring as per Dwg D3274

A/R ☐ Sikaflex-291 ☒ M112391

Sikaflex expire date: ☐ 10/20

3-Inspect for foreign objects as per QSI 024

4-Spray inside of tube on both sides of web with LPS-3

A/R LPS-3 Batch: N/A

5-Install Aft Cap and seal with Sikaflex. Clean excess adhesive.

A/R ☐ Sikaflex-291 ☒ M112391

Sikaflex expire date: ☐ 10/20

LPS PROCYON BATCH: M104051

WID 09/11/12

280

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

1

09/11/13

**Work Order ID 52872**

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Setup Start



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Stop



Item Name: Replacement Skidtube

Start Date: 16/10/2009 Start Qty: 1.00



Cust Item ID:

Required Date: 02/11/2009 Req'd Qty: 1.00



Customer:

Reference:

Run Start



Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Stop



QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run HoursDraw  
NumberDraw  
Rev.Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

290

Identify as per dwg &amp; Stock Location:

0.00



Packaging

Memo

0.00

Packaging

300

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

PC 9/12/02 (1)

09/12/03  
MF 09-12-02

# Picklist Print

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Page 1

12

Work Order ID: 52872

Parent Item: D206-642-541RevM

Parent Item Name: Replacement Skidtube

Start Date: 16/10/2009

Required Date: 02/11/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	--------------------------	---------------	----------------	--------

D2600-1-190RevD1 Manufactured No



Extrusion Round 3" 206

Warehouse Loc Qty Loc Code

Location

Main Warehouse

ST

65

47575

65

D3285-1RevA

Manufactured No



Cap

110

Each

27.0000

1.0000

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

27

47635

27

D3282-041RevC

Manufactured No



Float Web (206L/407)

150

Each

5.0000

1.0000

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

LG

5

48389

5

B 52696

1 11/9/10/2009

1 BE 09-10-22

# Picklist Print

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Work Order ID: 52872



Parent Item: D206-642-541RevM



Parent Item Name: Replacement Skidtube

Start Date: 16/10/2009

Required Date: 02/11/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D2649RevB1		Manufactured	No			190	Each	593.0000	20.0000			

Cross Bolt Spacer

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
LG	83	
51529	83	
Main Warehouse		
ST	510	
36013	5	
47112	383	
48271	122	

12 BE 09/11/04

D3275-1RevA1

Manufactured No

190

Each

28.0000

12.0000



Crossbolt Spacer

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
ST	28	
47464	1	
48117	15	
48270	12	

252510

12 BE 09/11/04

# Picklist Print

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Parent Item: D206-642-541RevM

Parent Item Name: Replacement Skidtube

Start Date: 16/10/2009

Required Date: 02/11/2009

Start Qty: 1.00

Required Qty: 1.00

Comments:

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	--------------------------	---------------	----------------	--------

CR3212-4-03		Purchased	No			250	Each	310.0000	2.0000			
-------------	--	-----------	----	--	--	-----	------	----------	--------	--	--	--



Cherry Rivet

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

110139

310

111359

96

112314

200

15984

14

X2 MD 09/11/11

D3415-041RevB		Manufactured	No			250	Each	93.0000	1.0000			
---------------	--	--------------	----	--	--	-----	------	---------	--------	--	--	--



Nut Plate

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

93

33842

93

X1 AMP 09/11/11

CCR264SS3-3		Purchased	No			250	Each	267.0000	2.0000			
-------------	--	-----------	----	--	--	-----	------	----------	--------	--	--	--



Cherry Rivet

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

267

111548

52

111827

115

112314

100

X2 MD 09/11/11

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Shop Packet Print

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Work Order ID: 52872



Parent Item: D206-642-541RevM



Parent Item Name: Replacement Skidtube

Start Date: 16/10/2009

Required Date: 02/11/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaizing Qty To Pick	Qty Issued	Date Issued	Status
ALS4-1032-130		Purchased	No			250	Each	5,373.000	78.0000			

Insert

Warehouse  
Location

Loc Qty

Loc Code

Main Warehouse

ST

5373

110511

5373

270

Each

41.0000

1.0000

~~78~~ MD 09/11/11

D3536-15RevA

Manufactured

No



Gasket

Warehouse  
Location

Loc Qty

Loc Code

Main Warehouse

ST

41

47711

3

48159

12

51600

26

XI MD 09/11/11

# Picklist Print

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Parent Item: D206-642-541RevM

Parent Item Name: Replacement Skidtube

Start Date: 16/10/2009

Required Date: 02/11/2009

Start Qty: 1.00

Required Qty: 1.00

Comments:

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D3536-23RevA		Manufactured	No			270	Each	30.0000	1.0000			



Gasket

Warehouse Loc Qty Loc Code

Location

Main Warehouse

FP 12

51609 12

Main Warehouse

ST 18

30754 1

47713 17

D3536-35RevA

Manufactured No

270

Each

39.0000

1.0000



Gasket

Warehouse Loc Qty Loc Code

Location

Main Warehouse

ST 39

48160 13

51628 26

X1 1009/11/1

X1 1009/11/1

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Required Date: 02/11/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

Component Item ID Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D3536-39RevA		Manufactured	No			270	Each	28.0000	1.0000			



Gasket

Warehouse Loc Qty Loc Code

Location

Main Warehouse

FP 12

51637 12

Main Warehouse

ST 16

44648 1

47714 4

48161 11

D3535-15RevB

Manufactured No

270

Each

31.0000

1.0000



Wearshoe

Warehouse Loc Qty Loc Code

Location

Main Warehouse

FP 18

51671 18

Main Warehouse

ST 13

30750 4

42233 1

48155 8

X1 WMD 09/11/11

X1 WMD 09/11/11

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Parent Item: D206-642-541RevM



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Start Date: 16/10/2009

Required Date: 02/11/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D3535-35RevB		Manufactured	No			270	Each	36.0000	1.0000			

Wearshoe

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
ST	36	
48157	10	
51608	26	

XT MD 09/11/11

D3535-39RevB

Manufactured No

270

Each

26.0000

1.0000



Wearshoe

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
FP	13	
51619	13	
Main Warehouse		
ST	13	
48158	13	

XT MD 09/11/11

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Parent Item Name: Replacement Skidtube

Start Date: 16/10/2009

Required Date: 02/11/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D3535-23RevB		Manufactured	No			270	Each	24.0000	1.0000			
Wearshoe												

Warehouse	Loc Qty	Loc Code
Location		
Main Warehouse		
FP	13	
51618	13	
Main Warehouse		
ST	11	
48156	11	

XI m009/11/11

D3537-3RevC

Manufactured No

270

Each

69.0000

1.0000



Wearpad

Warehouse	Loc Qty	Loc Code
Location		
Main Warehouse		
ST	69	
30758	7	
33881	17	
35697	45	

XI m009/11/11

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Parent Item: D206-642-541RevM



Parent Item Name: Replacement Skidtube

Start Date: 16/10/2009

Required Date: 02/11/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	--------------------------	---------------	----------------	--------

D3537-1RevC

Manufactured

No

270

Each

284.0000

9.0000



Wearpad

## Warehouse

## Loc Qty

## Loc Code

### Location

Main Warehouse

FP

2

48288

2

Main Warehouse

FP17

265

51624

103

51678

162

Main Warehouse

ST

17

51918

17

X9 m009/11/11

AN960C10L

Purchased

No

270

Each

4,396.000

80.0000



washer

## Warehouse

## Loc Qty

## Loc Code

### Location

OFFSHORE

FG

100

103585

100

Main Warehouse

ST

4296

112116

993

112612

3303

X80 mp 011/11

October 16, 2009 10:07:57 AM

Shop Packet Print

Page 9

# Picklist Print

October 16, 2009 10:07:57 AM

Work Order ID: 52872



Parent Item: D206-642-541RevM



Parent Item Name: Replacement Skidtube


Start Date: 16/10/2009

Required Date: 02/11/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
AN960C416  washer		Purchased	No			270	Each	704.0000	1.0000			

Warehouse Loc Qty Loc Code

Location

Main Warehouse

ST

704

100993

704

D3672-1RevB

Manufactured

No

270

Each

2,056.000 2.0000



Phenolic Washer

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

1556

39275

19

42329

15

47628

522

52505

1000

Main Warehouse

ST117

500

51674

500

*MD 09/11/11*

*X2 MD 09/11/11*

# Picklist Print

Page 11

October 16, 2009 10:07:57 AM

Work Order ID: 52872



Parent Item: D206-642-541RevM



Parent Item Name: Replacement Skidtube

Start Date: 16/10/2009

Required Date: 02/11/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	--------------------------	---------------	----------------	--------

AN3C4A Purchased No 270 Each 1,826.000 80.0000



BOLT

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse	1826	
ST	40	
112314	124	
112720	178	
112724	984	
112794	500	
112829		

x 37

WMP 09/11/11

x 43

AN4C5A Purchased No 270 Each 601.0000 1.0000



BOLT

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse	601	
ST	19	
104936	80	
110552	500	
112243	2	
18918		

x 1

WMP 09/11/11

October 16, 2009 10:07:57 AM

Shop Packet Print

Page 11

# Picklist Print

Page 12

October 16, 2009 10:07:57 AM

Work Order ID: 52872

Parent Item: D206-642-541RevM

Parent Item Name: Replacement Skidtube

Comments:

Start Date: 16/10/2009

Required Date: 02/11/2009

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D2646RevC		Manufactured	No			270	Each	53.0000	1.0000			

Aft Cap

Warehouse Loc Qty Loc Code

Location

Main Warehouse

ST

53

20208

0

43801

1

46327

4

48109

48

D3413-1RevA

Manufactured

No

270

Each

40.0000

1.0000

Ring

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

20

48123

20

Main Warehouse

ST473

20

51586

20

X1 MD 09/11/11

X1 MD 09/11/11

SHOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. 32872



PL 09-10-21

RELEASED  
07.02.12  
DEO ATTACHED

DESIGN <b>CP</b>	DRAWN BY <b>PH</b>	<b>DART AEROSPACE USA, INC.</b> PORT HADLOCK, WA	
CHECKED <b>[Signature]</b>	APPROVED <b>[Signature]</b>	DRAWING NO. <b>D3274</b>	REV. D SHEET 1 OF 4
DATE <b>06.12.19</b>		TITLE <b>SKIDTUBE ASSEMBLY</b>	SCALE <b>NTS</b>
<b>A</b>	<b>04.03.15</b>	<b>NEW ISSUE</b>	
<b>B</b>	<b>04.08.09</b>	<b>MOVE SADDLE HOLE: 42.14 WAS 42.76</b>	
<b>C</b>	<b>05.03.16</b>	<b>ADD -043; NEW INSERTS</b>	
<b>D</b>	<b>06.12.19</b>	<b>NEW INSERTS, SS WEARSHOE + GASKET</b>	

Qty -041	Qty -043	Part Number	Description
X		D3274-041	SKIDTUBE ASSEMBLY
	X	D3274-043	SKIDTUBE ASSEMBLY
1	1	D2600-1-240	EXTRUSION
1	1	D2646	AFT CAP
12	12	D2649	CROSS BOLT SPACER
12	37	D3275-1	CROSS BOLT SPACER
1	1	D3282-041	FLOAT WEB
1	1	D3285-1	CAP
1	1	D3413-1	RING
1	1	D3415-041	NUT PLATE
1	1	D3535-15	WEARSHOE
1	1	D3535-23	WEARSHOE
1	1	D3535-35	WEARSHOE
1	1	D3535-39	WEARSHOE
1	1	D3536-15	GASKET
1	1	D3536-23	GASKET
1	1	D3536-35	GASKET
1	1	D3536-39	GASKET
9	9	D3537-1	WEARPAD
1	1	D3537-3	WEARPAD
78	78	ALS7-1032-130	INSERT (or AKS4-1032-130, ALS4-1032-130, AELS-1032-130)
80	80	AN3C4A	BOLT
1	1	AN4C5A	BOLT
1	1	AN960C416	WASHER
80	80	AN960C10L	WASHER
2	2	CCR264SS3-3	RIVET
2	2	CR3212-4-03	RIVET
2	2	NAS1515H3L	WASHER

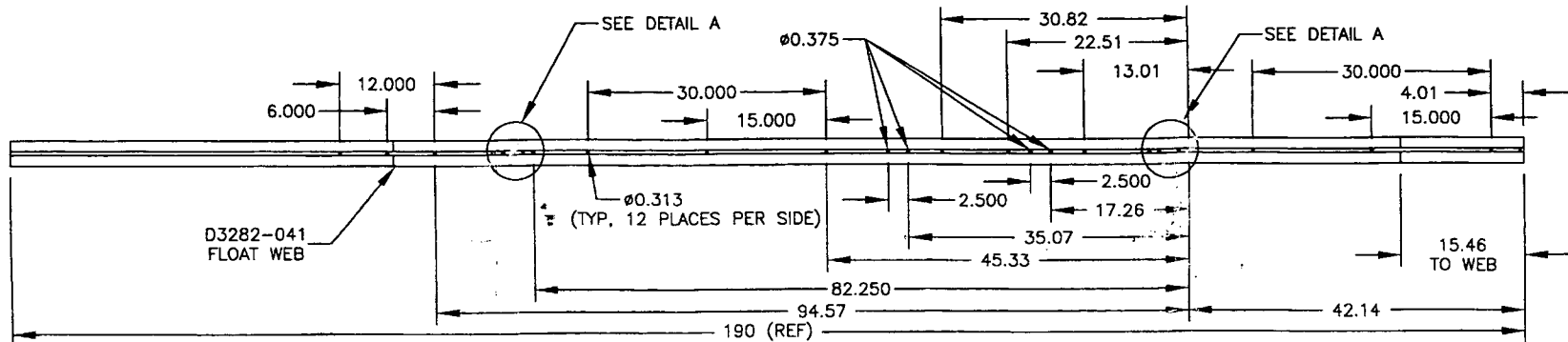
#### GENERAL NOTES:

- TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.
- DAMAGE TOLERANCE ON FWD BEND:  
THERE SHOULD BE NO VISIBLE WRINKLES IN THE BEND FROM THE GROUND TO A HEIGHT OF 7 INCHES ABOVE THE GROUND. IT IS ACCEPTABLE TO POLISH OUT GOUGES UP TO 0.020 DEEP IN THE BENT PORTION OF THE TUBE. A MAXIMUM REDUCTION IN DIAMETER OF 0.150" IS ACCEPTABLE IN THE BENT PORTION OF THE TUBE.
- ALL HOLES DRILLED ON CENTERLINES.
- BOND D3282-041 FLOAT WEB INTO D3274-1/-3 OUTER TUBE WITH NON-STRUCTURAL SIKAFLEX-241/291 ADHESIVE PER DART QSI 015. ENSURE HOLES LINE-UP.
- WELDING TO BE DONE PER DART QSI 004.
- FINISH: - ACID ETCH, ALODINE ASSEMBLY PER DART QSI 005 4.1  
- POWDER COAT WHITE (REF. 4.3.5.1) PER DART QSI 005 4.3
- DRILL Ø0.287 HOLES FOR ALS7-1032-130 INSERTS USING DT3274-1T2 BEFORE FINISH. INSTALL ALS7-1032-130 INSERTS AFTER FINISH. SEAL WEARSHOE BOLTS WITH SIKAFLEX -241/-291.
- SPRAY INSIDE OF TUBE WITH A COAT OF LPS LABORATORIES "LPS-3" AFTER FINISH AND INSTALLATION OF INSERTS. COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES "LPS PROCYON" AFTER FINAL ASSEMBLY. CLEAN EXCESS OFF POWDER COATING WITH MEK DEGREASER.

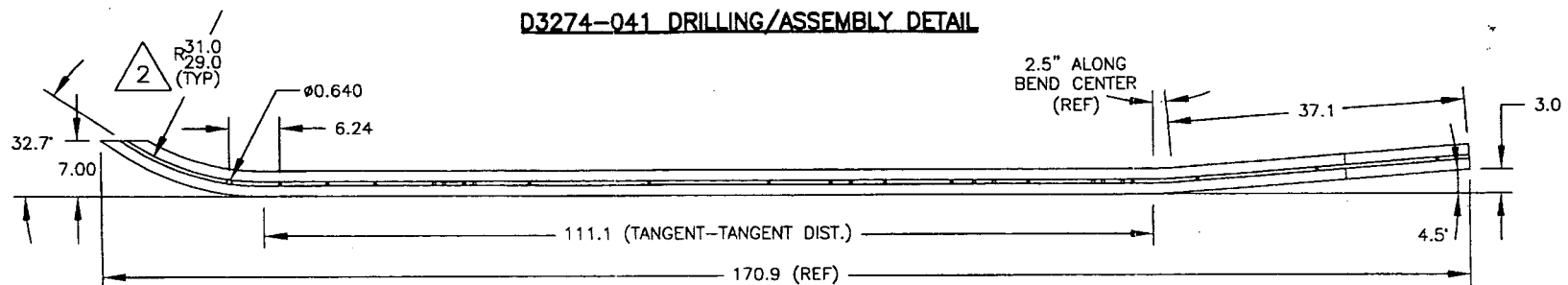
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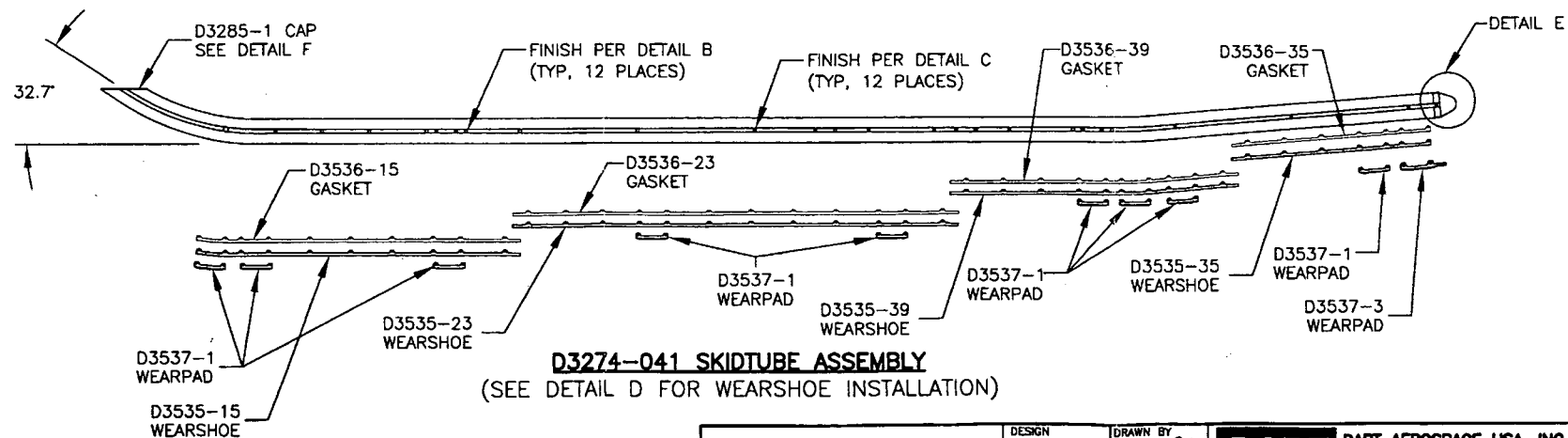
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**D3274-041 DRILLING/ASSEMBLY DETAIL**



**D3274-041 BEND/DRILLING DETAIL**



**D3274-041 SKIDTUBE ASSEMBLY**  
(SEE DETAIL D FOR WEARSHOE INSTALLATION)

RELEASED

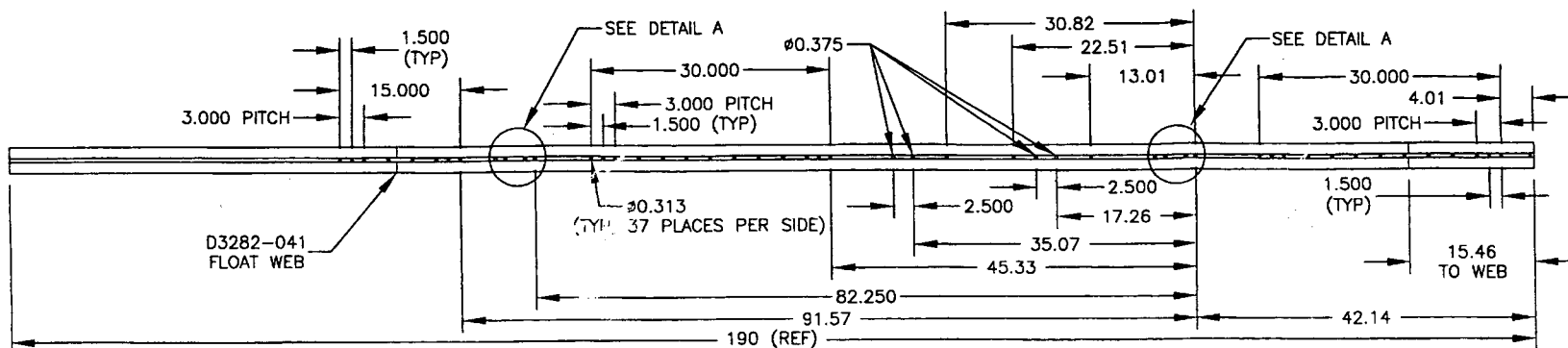
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W/O 32872

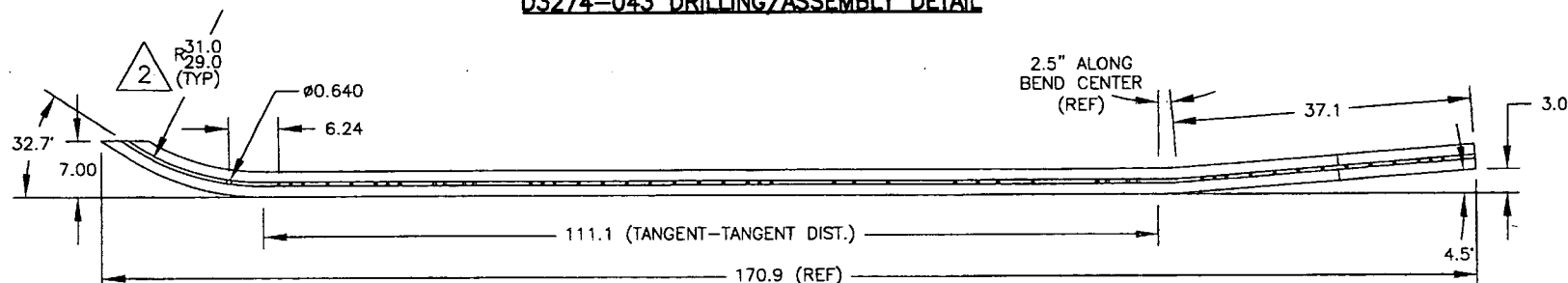
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		DATE	06.12.19			TITLE	SKIDTUBE ASSEMBLY
						REV. D	SHEET 2 OF 4
						SCALE	1:15



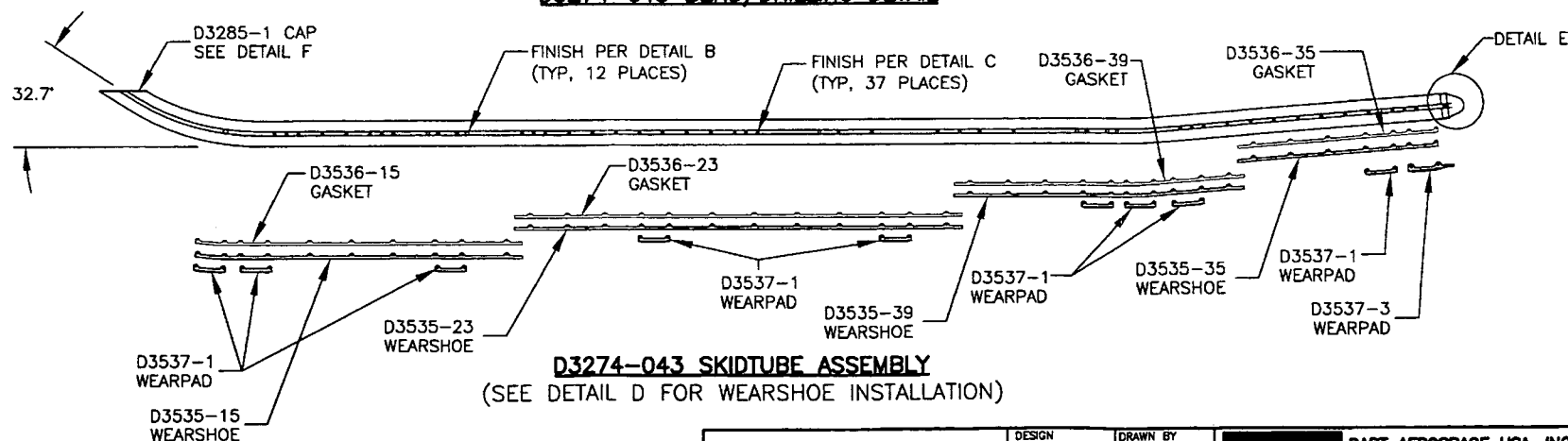
DEO ATTACHED



D3274-043 DRILLING/ASSEMBLY DETAIL



D3274-043 BEND/DRILLING DETAIL



D3274-043 SKIDTUBE ASSEMBLY

(SEE DETAIL D FOR WEARSHOE INSTALLATION)

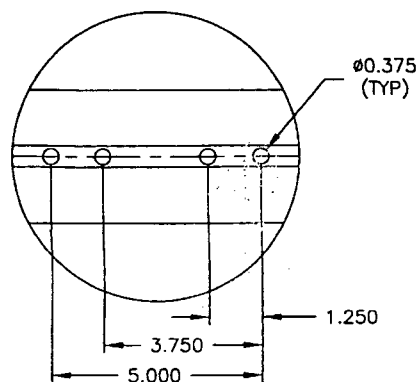
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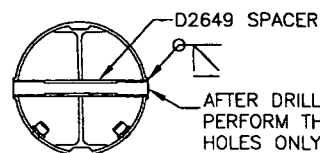
W/0 52872

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		CHECKED	APPROVED	D3274	SHEET 3 OF 4
		DATE		TITLE	SCALE
		06.12.19		SKIDTUBE ASSEMBLY	1:15

# **DETAIL A: DRILL DETAIL**

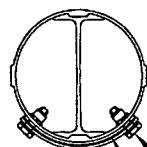
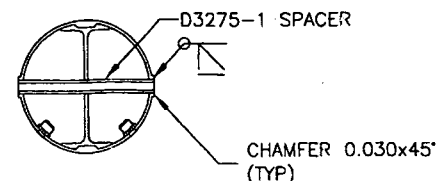


# **DETAIL B** FOR 0.375 HOLES ONLY



- AFTER DRILLING AND BENDING ASSEMBLY  
PERFORM THE FOLLOWING FOR 0.375  
HOLES ONLY:
1. CHAMFER HOLE 0.030x45°
  2. INSERT D2649 SPACER
  3. WELD INTO PLACE AND GRIND FLUSH
  4. C'BORE TO 0.313x0.75 DEEP

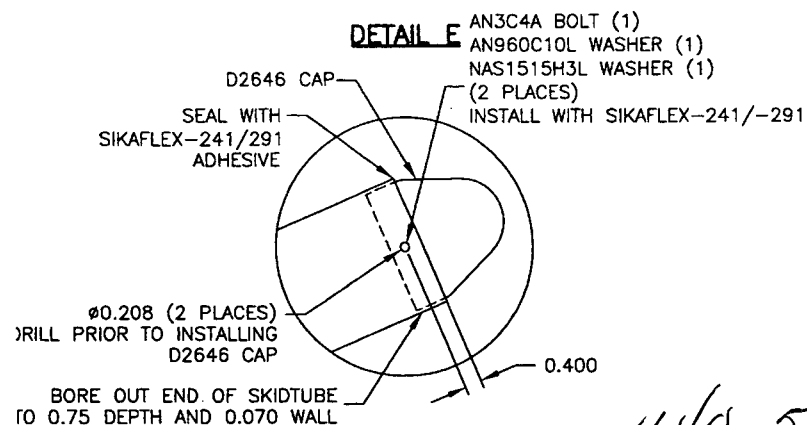
# **DETAIL C** FOR 0.313 HOLES ONLY



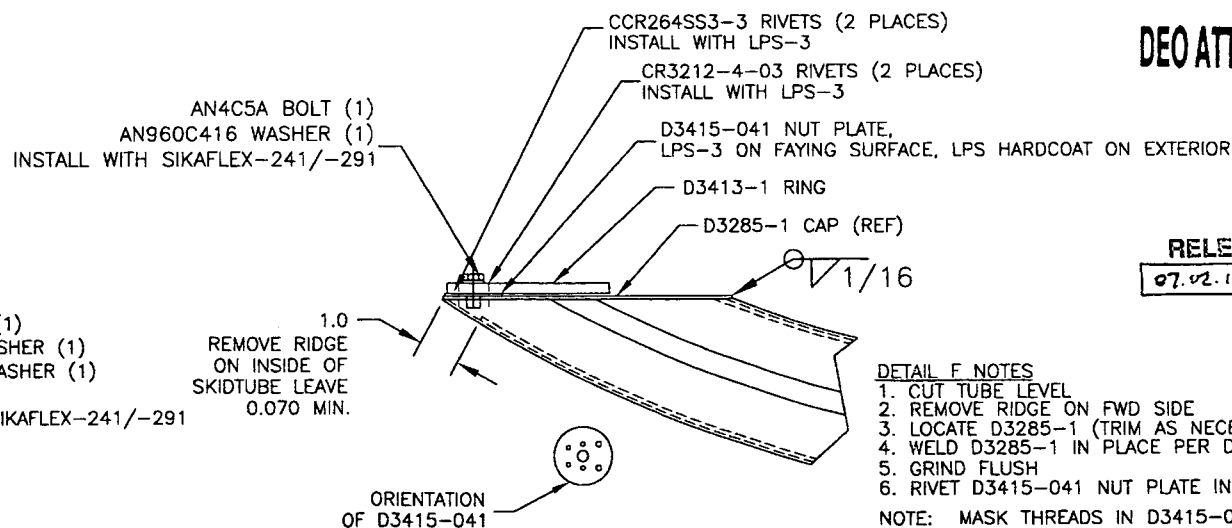
# **DETAIL D**

- ALS7-1032-130 INSERT (1)  
AN3C4A BOLT (1)  
AN960C10L WASHER (1)  
(78 PLACES)  
GASKET/WEARSHOE/WEARPAD (REF)

# **DETAIL E**



# **DETAIL F: END FINISHING DETAIL**



DEO ATTACHED

RELEASED

07.02.12

# **DETAIL F NOTES**

1. CUT TUBE LEVEL
  2. REMOVE RIDGE ON FWD SIDE
  3. LOCATE D3285-1 (TRIM AS NECESSARY)
  4. WELD D3285-1 IN PLACE PER DART QSI 004
  5. GRIND FLUSH
  6. RIVET D3415-041 NUT PLATE IN PLACE
- NOTE: MASK THREADS IN D3415-041  
PRIOR TO FINISH

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		#	#	D3274	SHEET 4 OF 4
		DATE		TITLE	SCALE
		06.12.19		SKIDTUBE ASSEMBLY	1:3

W/O 52872

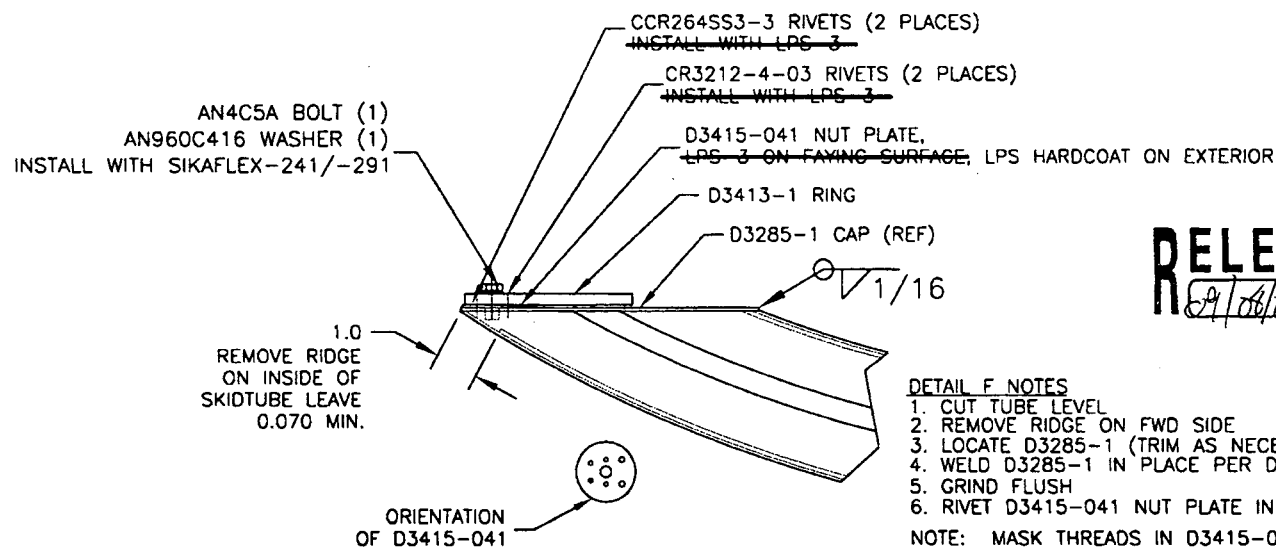
DRAWING NO. D3274	TITLE SKIDTUBE ASSEMBLY	REV. D	DART AEROSPACE USA, INC ENGINEERING ORDER	D.E.O. NO. D3274-D-1	SHEET NO. SHEET 1 OF 1	SCALE NTS
DRAWN <i>CP</i>	CHECKED <i>[Signature]</i>	MFG. APPR. <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DE APPR. <i>[Signature]</i>		
DATE 09.06.17	DATE 09.06.23	DATE 09/06/23	DATE 09/06/23	DATE 09.06.23		

LPS-3 IS NO LONGER USED DURING ASSEMBLY OF SKIDTUBE.

AMEND NOTE 8: ~~"SPRAY INSIDE OF TUBE WITH A COAT OF LPS LABORATORIES 'LPS 3' AFTER FINISH AND INSTALLATION OF INSERTS.~~  
COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES 'LPS PROCYON' AFTER FINAL ASSEMBLY, CLEAN EXCESS OFF  
POWDER COATING WITH MEK DEGREASER."

AMEND DETAIL F AS SHOWN:

### DETAIL F: END FINISHING DETAIL



#### DETAIL F NOTES

1. CUT TUBE LEVEL
2. REMOVE RIDGE ON FWD SIDE
3. LOCATE D3285-1 (TRIM AS NECESSARY)
4. WELD D3285-1 IN PLACE PER DART QSI 004
5. GRIND FLUSH
6. RIVET D3415-041 NUT PLATE IN PLACE

NOTE: MASK THREADS IN D3415-041  
PRIOR TO FINISH

*W/O 52872*

NO. 214

AWS D17.1.2001  
QUALIFICATION TEST RECORD

Name: Barclay Elliott  
Job number: 52855  
Part number: D206-442-251  
Description: 206 skid tube  
Welding Process: Tig[☒] Mig[ ]  
Base material: Aluminium  
Current: AC[☒] DC[ ]

TEST REQUIREMENTS AND RESULTS

Visual: pass[☒] fail[ ]  
Penetration: pass[☒] fail[ ]

UNACCEPTABLE

Cracks: pass[☒] fail[ ]  
Undercut: pass[☒] fail[ ]  
Pin holes: pass[☒] fail[ ]  
Overlap (cold lap): pass[☒] fail[ ]  
Porosity (surface): pass[☒] fail[ ]  
Coloration: pass[☒] fail[ ]

Qualifier Barclay Elliott Date of Test Coupon 09.10.29  
Welder Barclay Elliott Date of Test Coupon 09.10.29

The above named individual is qualified in accordance with AWS D17.1.2001 to weld